

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT: JANS, MANFRED ERNST

SERIAL NO.: 10/070,100

ART UNIT: 1723

FILED: May 20, 2002

EXAMINER: REIFSNYDER, D.A.

TITLE: PERMANENT MAGNET LIQUID TREATING DEVICE

REMARKS ON AMENDMENT "A"

Commissioner for Patents
P. O. Box 1450
Alexandria, VA 22313-1450

Sir:

In response to the Office Action of April 25, 2003, having a response being due on July 25, 2004, please consider the following remarks in conjunction with the amendments to the above-identified application as follows:

REMARKS

Upon entry of the present amendments, original Claims 1 - 11 have been canceled and new Claims 12 - 25 substituted therefor. Reconsideration of the rejections, in light of the foregoing amendments and present remarks, is respectfully requested. The present amendments have been entered for the purpose of placing the application into a better condition for allowance and also for the purpose of placing the claim language into a more acceptable U.S. format.

In the Office Action, it was indicated that Claims 1 - 11 were rejected under 35 U.S.C. §102(e) as anticipated by the Fletcher patent. Claim 1 - 11 were also rejected under 35 U.S.C. §103(a) as unpatentable over the German patent '357 in view of the Fletcher patent. Claims 1 - 11 were also rejected under 35 U.S.C. §103(a) as being unpatentable over the Schope patent in view of

the Fletcher patent. Claims 1 - 11 were rejected under 35 U.S.C. § 112, first paragraph, as lacking an enabling disclosure. Additionally, Claims 1 - 11 were also rejected under 35 U.S.C. § 112, second paragraph, as being indefinite. The drawings were objected to because of duplicate reference numerals. Additionally, the specification was objected to because of duplicate recitations.

As an overview to the present reply, Applicant has extensively amended the language of original Claims 1 - 11 in the form of new Claims 12 - 25. New Claims 12 - 25 express the original limitations in a more proper U.S. format, including proper antecedent bases and proper structural interrelationships throughout. Any indefinite terminology found in the original claims has been corrected herein. Additionally, the use of the reference numerals within the claim language has been corrected in these new claims. New independent Claim 12 corresponds to the limitations of original independent Claim 1. New dependent Claims 13 - 16 correspond, respectively, to the limitations of original Claims 2 - 5. New dependent Claims 17 and 18 correspond to the alternate recitations found in original dependent Claim 6. New dependent Claims 19 and 20 correspond to the alternate recitations in original dependent Claim 7. New dependent Claims 21 and 22 correspond to the separate dependencies of the alternate recitations found in original dependent Claim 7. New dependent Claims 23 - 25 correspond to the limitations of original dependent Claims 9 - 11.

Applicant believes that the language of independent Claim 12 serves to sufficiently distinguish the present invention from the teachings of the prior art references. In particular, it is noted that the Fletcher patent does show a structure that is reminiscent of the structure of the present invention. However, the Fletcher patent differs from that of the present invention in one essential aspect, namely, the annular spacer members in the Fletcher patent are formed from a non-magnetic material (i.e. "TEFLON"), while the spacer discs 4 of the invention are defined as "magnetizable". In

particular, in Fletcher, as shown in Figures 4 - 6 therein, the magnets 42 are not annular discs but are rather "cylindrical" in shape. These magnets 42 are separated by cylindrical highly magnetizable pole pieces 44 (as shown in Figure 6). This construction is part of an apparatus for magnetically treating a hydrocarbon fuel (as defined in Claim 11 of Fletcher patent). This is quite different from the "water" treatment device of the present invention. In general, Fletcher patent deals with the treating of fluid fluids, specifically hydrocarbon fuels. The reference to "treating other fluids such as water" only appears in column 1, line 17 under the "technical field" of the invention. There is nothing of the Fletcher patent, beyond this reference, which would suggest its use, in any way, in association with the treatment of water. Generally, the structure of the Fletcher patent would not be effective for the treatment of water.

The German '357 patent discloses a similar arrangement of annular magnets 2 and annular spacers 3 consisting of metal within a tubular housing 1. However, in the German' 357 patent, in the inner space in the housing, there is a further column of magnets and spacer within the inner tube 4 of plastic material. The intended spiral flow of the water in the annular space between the inner column and the outer annular magnets and spacers is provided by a turbine 20 which is freely rotatable and rotated by the liquid flowing through the device. This construction is not effective for the magnetic treatment of water by reason of the arrangement of magnets and because of the ineffectiveness of the freely rotating propeller. The freely rotating propeller only acts in slowing down the motion of the liquid but does not provide a "continuous" spiral motion thereto. Applicant respectfully contends that one having ordinary skill in the art would not combine the Fletcher patent with the German '357 patent because of the entirely different constructions thereof and the difference of intended purposes between these patents.

The Schope patent is specifically provided for magnetically treating water. However, the Schope patent has a different construction in that the magnets are not "annular" magnets, but are magnets of cubic form of which at least three pairs are uniformly spaced along the length of the pipe. The pole faces of each magnet are generally planar and extend in a direction generally perpendicular to the axis of the pipe. North and south poles of a magnet on one side are opposite to the south and north poles on the other side of the tube. This creates a radial magnetic flux, as shown in Figure 2 of the Schope patent. The spacers 41 - 43 are non-magnetic (see column 3, line 15 of the Schope patent). This is fundamentally a different structure than the structure of the present invention, and, in particular, with respect to the magnets and spacers of the present invention. In view of the strong structural differences between the Schope patent and that of the prior art Fletcher patent and/or the prior art German '357 patent, Applicant respectfully contends that one having ordinary skill in the art would not be inclined to combine these teachings. As such, Applicant respectfully contends that independent Claim 12, as defined herein is patentably distinguishable from the prior art references.

To further clarify the differences in the present invention, it is now stated, in the preamble, that the present invention is a permanent magnet "water" treating device. Additionally, it is indicated that the housing has a means therein for causing a "continuous" spiral motion of the water passing through the housing. This specific arrangement of "disc-shaped" ring magnets and "disc-shaped" magnetizable spacer discs are now specifically recited within independent Claim 12. On this basis, Applicant contends that independent Claim 12 is patentably distinguishable from the prior art.


For purpose of clarity, Applicant has added reference numerals to Figure 1 so as to specifically show those ring magnets "3", along with the "twinned ring magnets" identified with the

reference numeral "3a" and "3b". Applicant's attorney argues that such numbering is correct since the "twinning ring magnets 3a and 3b" are merely a subset of the generally stated "ring magnets 3". Applicant has added reference numerals identifying each of the "spacer discs". The end spacer disc 4a is specifically identified herein. Applicant's attorney respectfully disagrees with the analysis that the "connecting pieces 5" and the "inner tube 6" should be identified with the same reference numeral. Quite clearly, it is possible within the concept of the present invention that these two pieces can be formed in one piece by the action of welding, or by other secure connection. These are two definable structures and each definable structure should be identified with a separate reference numeral. In fact, in Figure 1, there is a broken line illustration showing how the connecting piece 5 is joined to the inner tube 6. Applicant's attorney respectfully contends that these should have separate reference numerals.

Based upon the foregoing analysis, Applicant contends that independent Claim 12 is now in proper condition for allowance. Additionally, those claims which are dependent upon Claim 12 should also be in condition for allowance. Reconsideration of the rejections and allowance of the claims at an early date is earnestly solicited. Since no additional claims have been added above those originally paid for, no additional fee is required.

Respectfully submitted,

12-31-03
Date



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